



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,617	11/18/2003	Te-Ming Chiu	06720.0112.	4150
22852	7590	12/22/2008		
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			EXAMINER YEN, ERIC L.	
			ART UNIT	PAPER NUMBER
			2626	
			MAIL DATE	DELIVERY MODE
			12/22/2008 PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/714,617

Applicant(s)

CHIU ET AL.

Examiner

ERIC YEN

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. In response to the Office Action mailed 4/4/08, applicant has submitted an amendment filed 8/20/08.

Claims 1, 11, 21, 28, 31, 36, and 38, have been amended.

Claim Objections

2. Claims 16 are objected to because of the following informalities:

As per Claim 4, "of the quantized data and the de-quantized data" is strange wording (presumably Claim 4 means between the two different pieces of data).

Claim 6 recites "truncating" "up to the respective layer size limits", which makes it unclear because truncating usually involves reducing size.

Claims 20, 24, have the same issue as claim 6.

Claim 16 is awkwardly phrased (due to the comma location) and can be interpreted as the decoded data, as it is, is de-amplified, rather than claiming an act of de-amplifying the data. Also, "the quantized data are amplified" is grammatically awkward.

Appropriate correction is required.

Allowable Subject Matter

3. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not teach where the shifting by a scale factor is done in response to comparing a scale factor to a threshold and determining that the scale factor exceeds a threshold value, where the threshold value is predetermined according to a desired noise tolerance level.

The prior art of record generally compares noise levels in scale factor bands to noise thresholds, and does not compare scale factors to thresholds.

Edler et al. (US 6,678,647) teaches keeping quantization noise below a threshold using a scale factor (col. 4, lines 52-65), but does not teach where the scale factor is compared to a threshold.

Hall (US 7,103,316) teaches where scale factors are used to determine a threshold (col. 13, lines 27-37).

Herre et al. (US 7,181,079) teaches calculating scale factors by keeping a quantization noise below a threshold (col. 4, lines 3-12).

Frost et al. (US 7,190,832) teaches determining a threshold by using a scale factor (col. 21, lines 13-19).

Park et al. (US 6,349,284) teaches keeping the quantization noise below a threshold (col. 6, lines 6-19).

Kobayashi et al. (US 6,728,739) suggests a bit shifter to shift the difference by the corresponding scale factor in each of the sub-bands in which the corresponding scale factor exceeds a threshold value ("scale factor... having the largest absolute value... group scale factor... scaling is performed on each piece of the calculated... scale factor can be, for example, the amount of the shift in the bit shift of data... scaling

is performed by shifting bits for data by an amount of the shift corresponding to the scale factor", col. 5, lines 3-33).

However, Kobayashi does not teach where the threshold is predetermined according to a desired noise tolerance level.

Therefore, the independent Claims 1, 11, 21, 28, 31, 36, and their corresponding dependent claims would allowable if the objections are addressed.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO 892.

5. This application is in condition for allowance except for the following formal matters:

Claim objections presented above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 25 USPQ 74, 453 O.G. 213, (Comm'r Pat. 1935).

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC YEN whose telephone number is (571)272-4249. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EY 11/18/08
/Patrick N. Edouard/
Supervisory Patent Examiner, Art Unit 2626